



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,982	02/20/2004	Rafail Zubok	532/5	7133

530 7590 09/24/2007
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER

MILLER, CHERYL L

ART UNIT	PAPER NUMBER
----------	--------------

3738

MAIL DATE	DELIVERY MODE
-----------	---------------

09/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,982

Applicant(s)

ZUBOK ET AL.

Examiner

Cheryl Miller

Art Unit

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-22 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Attachments 1-3

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-6, 8-13 and 15-22 have been considered but are moot in view of the new ground(s) of rejection.

The prior art applied in the previous rejection have been maintained and marked up attachments have been attached hereto to more clearly illustrate the examiner's interpretation of the references.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 6, 8-10, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Songer et al. (US 7,001,433 B2, cited previously). See figures 6a-6e, 7a-7b and col.9 line 17-col.10 line 25. Songer discloses an artificial intervertebral disc comprising a first baseplate (82) with aperture (88), a second baseplate (84) with aperture (90), a bearing mechanism (76; details seen in fig.7a, 7b) coupled to the baseplates (82, 84), comprising a semispherical bearing (outer surface of 76), pair of retaining caps (peaks and valleys of 104 and 106) connected by locking posts (108, 110); said bearing (76) including a first bore (concavity of 104) having a first diameter and a second bore (112) having a second smaller diameter, the bores

Art Unit: 3738

aligned; the pair of caps including a first cap (106) having a first post (110) inserted into first bore (concavity of 104), and a second cap (104) inserted into second smaller bore (112) wherein the baseplates rotate relative the bearing mechanism, and wherein the rotation of the baseplates (82, 84) relative the bearing (76) extends the bearing mechanism through the baseplate aperture (at 78 and 80; see fig.6a; the bearing mechanism is partially extending through the aperture during rotation). Songer discloses the baseplates (82, 84) to be outwardly domed (see surfaces 82a and 84a in fig.6B, 6e, and 6f domed is clearly shown). Songer discloses the bearing surfaces of the baseplates to be semispherical (shown as so in fig.6E). See attachment 1.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Navarro et al. (US 2006/0259149 A1). Navarro discloses an artificial intervertebral disc (fig.15) comprising a first baseplate (200 or 20+200) with aperture (271), a second baseplate (300; or 30+300) with aperture (371), a bearing mechanism (motion limiting members) coupled to the baseplates, comprising a semispherical bearing (ball 91), pair of retaining caps (tops 92) connected by locking posts (80), said bearing including a first bore (opening in cushion 40) having a first diameter and a second bore (271 or bore of 400) having a second smaller diameter, the bores aligned; the pair of caps including a first cap (one top 92 seen in fig.8) having a first post (80) inserted into first bore (opening of 40), and a second cap (bottom 92 of another post) inserted into second smaller bore (opening of 400), wherein the baseplates rotate relative the bearing mechanism (some rotation is allowed, although minimal; P0019; fig.2; P0065), and wherein the rotation of the baseplates relative the bearing extends the bearing mechanism through the baseplate aperture (see figs.9, 16, 18). Navarro discloses the bearing surfaces (272, 372) of the

Art Unit: 3738

baseplates to be semispherical (fig.9). Navarro discloses the apertures (271, 371) of the baseplates (200, 300) to be tapered (P0069) such that an outwardly facing surface has a larger diameter (see fig.9). See attachment 2.

Claims 1-6 and 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Biedermann et al. (US 2004/0117021 A1). Biedermann discloses an artificial intervertebral disc (figs.4, 5) comprising a first baseplate (22) with aperture (31', 32'), a second baseplate (21) with aperture (31, 32), a bearing mechanism (23) coupled to the baseplates (see fig.4), comprising a semispherical bearing (outer surface of core 23), pair of retaining caps (heads of screws 34, 34') connected by locking posts (shafts of screws 34, 34' and/or sleeve 33), said bearing including a first bore (30) having a first diameter and a second bore (bore of sleeve 33) having a second smaller diameter, the bores aligned; the pair of caps including a first cap (head of screw 34 or bottom rim of sleeve 33) having a first post (sleeve 33) inserted into first bore (30), and a second cap (head of screw 34') inserted into second smaller bore (bore of sleeve 33), wherein the baseplates rotate relative the bearing mechanism (P0032), and wherein the rotation of the baseplates relative the bearing extends the bearing mechanism through the baseplate aperture (seen in figures as capable of so, caps are located within apertures). Biedermann discloses the baseplates (21, 22) to be outwardly domed (P0029). Biedermann discloses the bearing surfaces of the baseplates to be semispherical (bearing surfaces considered to be inner concave surfaces of baseplates). Biedermann discloses tapered endplates (see fig.4, 5; P0029). See attachment 3.

Allowable Subject Matter

Claims 15-22 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Miller whose telephone number is (571) 272-4755. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4755. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3738

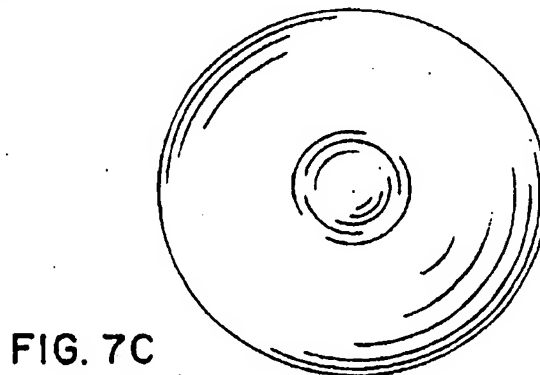
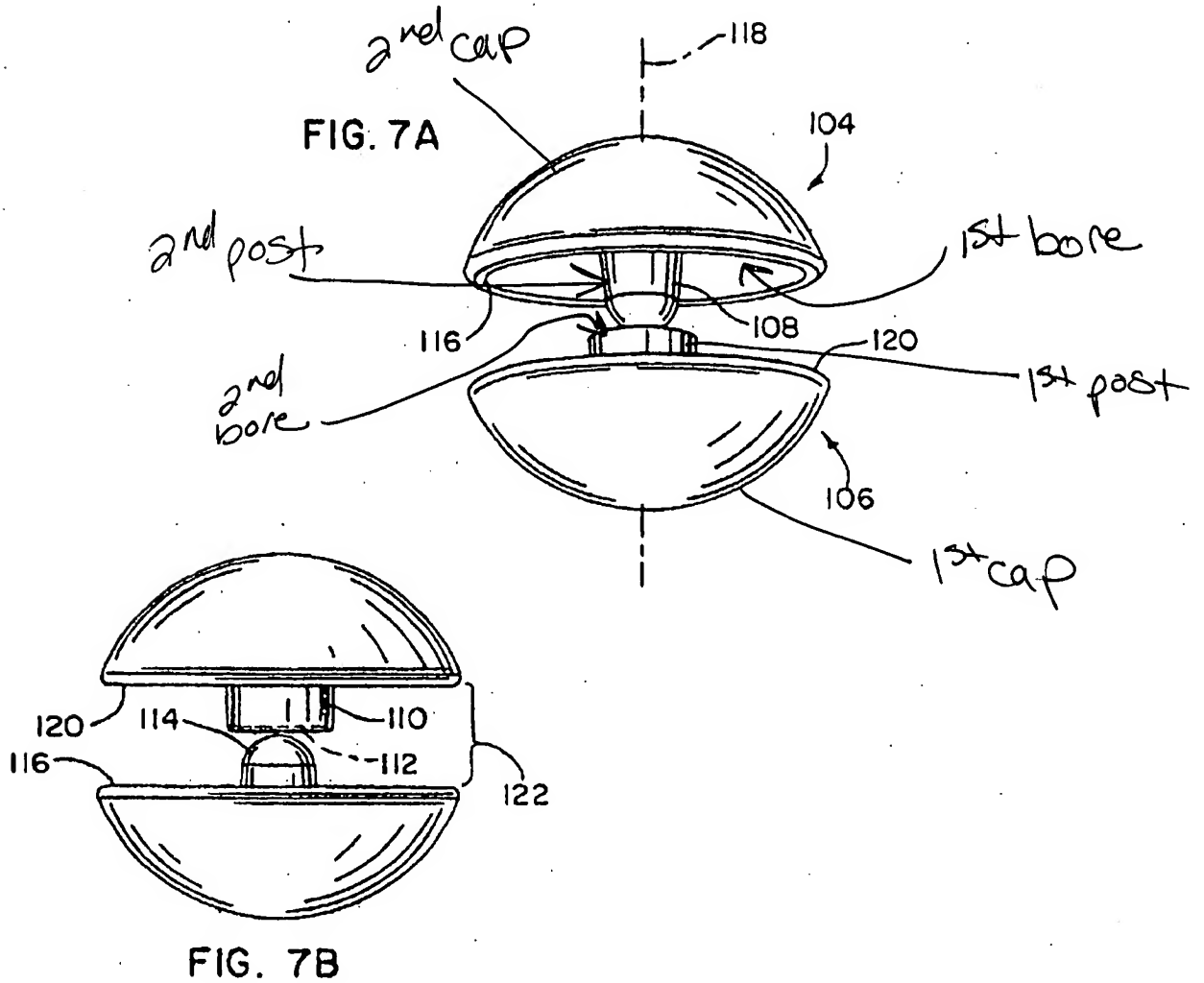
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Cheryl Miller



BRUCE SNOW
PRIMARY EXAMINER



Attachment #2 (marked up)

Patent Application Publication Nov. 16, 2006 Sheet 11 of 30

US 2006/0259146 A1

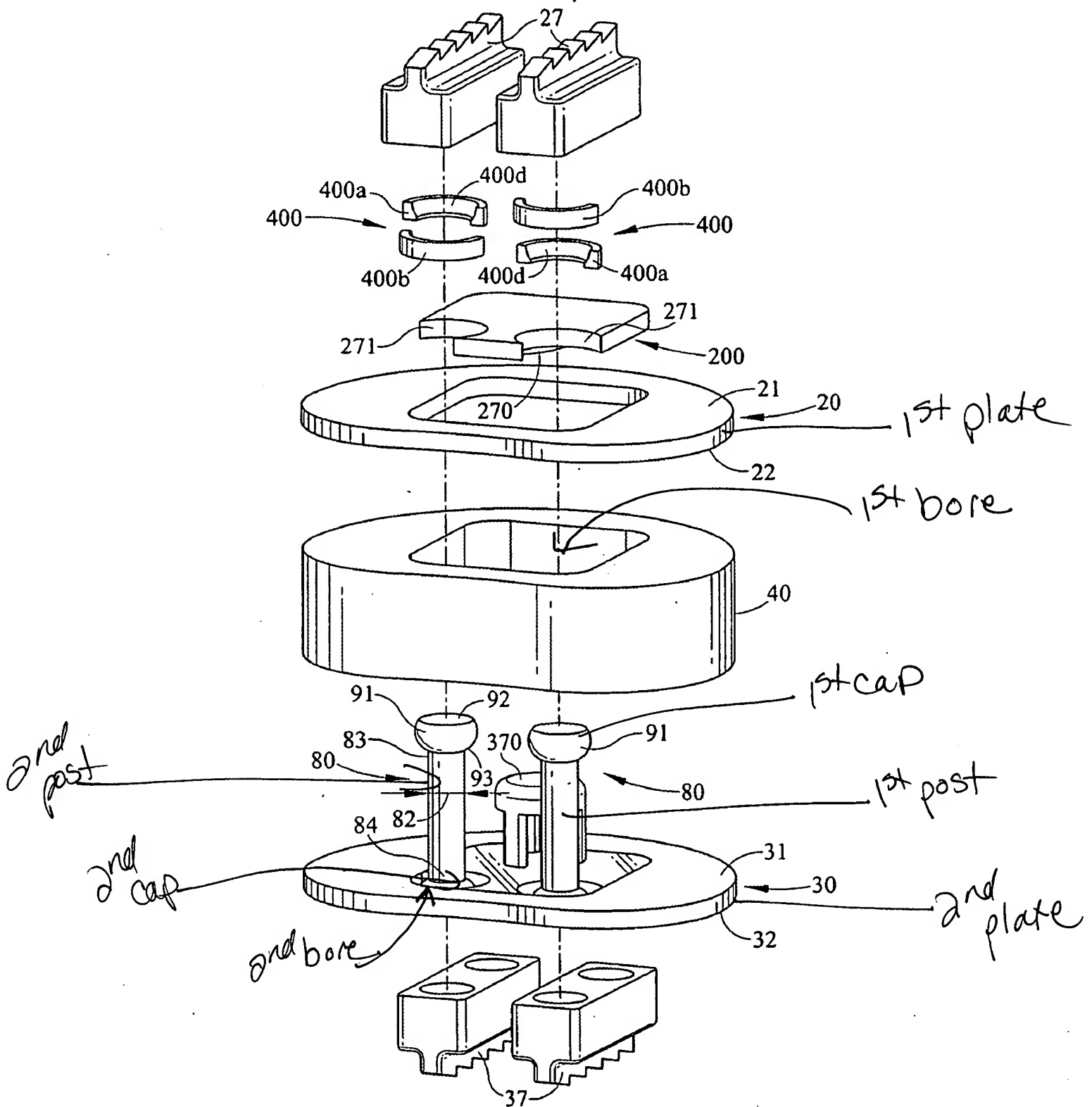


FIG. 8

Attachment #3 (marked up)

Patent Application Publication Jun. 17, 2004 Sheet 1 of 3

US 2004/0117021 A1

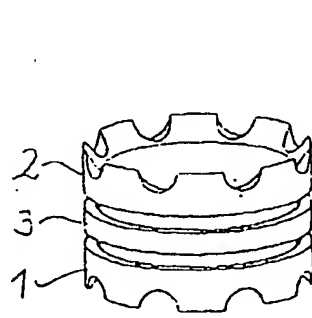


Fig. 1

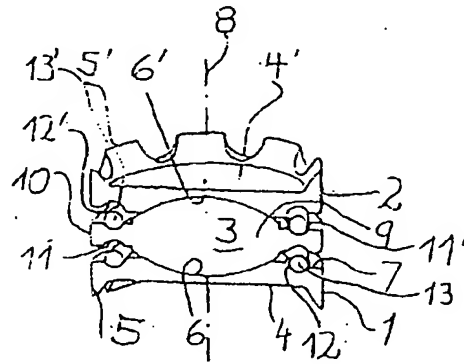


Fig. 2

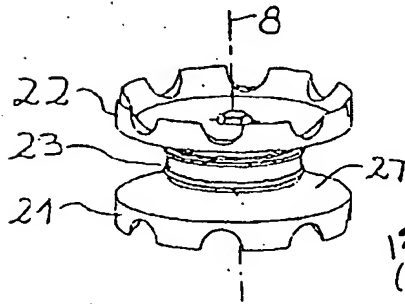


Fig. 3

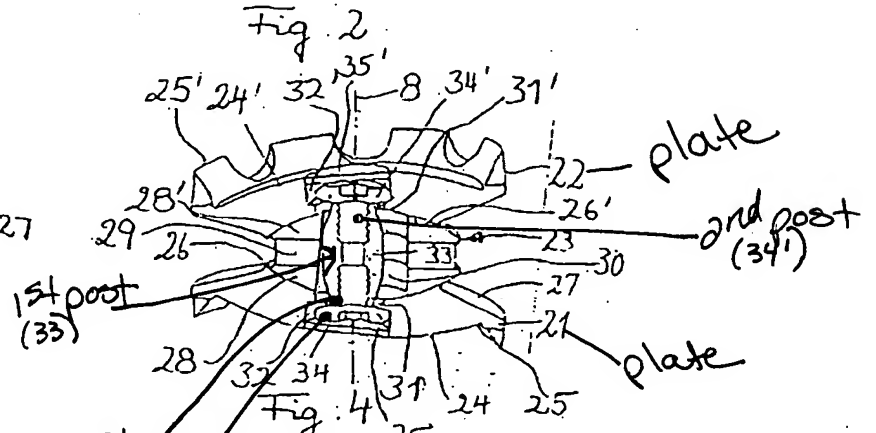


Fig. 4

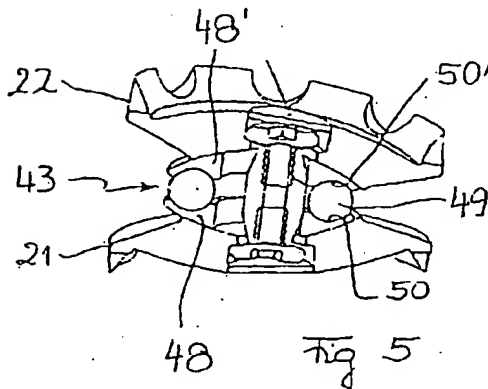


Fig. 5

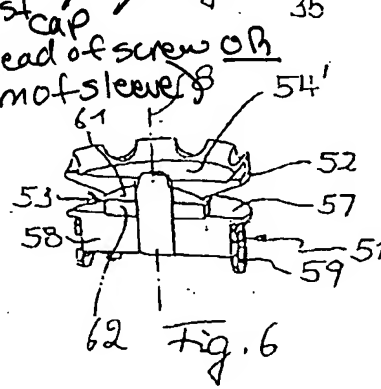


Fig. 6

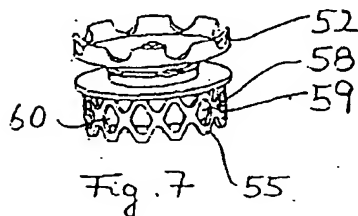


Fig. 7